

REMARKS

The Office Action notes that Claims 1-13, and 21-23 are pending in the application. Claims 14-20 are withdrawn from consideration. By this Amendment, Claims 1 and 21 have been amended. Support for the amendments to Claims 1 and 21 can be found throughout the originally filed application papers. Therefore, no new matter has been added. Claims 1-13, and 21-23 remain pending.

Claim Rejections – 35 U.S.C. § 102

Claims 1-8, 10 and 12-13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Adair et al. (U.S. Pat. No. 5,504,877; "Adair").

Claim 1, as amended, provides a method for producing a polymer-particle composite. The method comprises:

forming a layer containing a polymeric material, wherein the layer has a thickness that is at least equal to .04 μm , and
packing particles in the polymeric material by contacting the layer with a particle suspension, which contains a dispersion of the particles in a solvent capable of swelling the polymeric material.

Adair, on the other hand, discloses a process that imparts a positive surface charge to a silicon wafer by treating the wafer substrate with polymers (column 3, lines 60-63). The substrate is then immersed in an aqueous suspension of diamond particles (column 4, lines 29-31). The diamond particles are negatively charged and therefore, they adhere to the positively charged silicon substrate (column 4, lines 32-36).

To establish the anticipation of Claim 1, the Office Action must establish that Adair discloses all the limitations of Claim 1 as set forth therein. The Applicant respectfully submits that the Office Action fails to establish that Adair discloses all of the elements of amended Claim 1. The Office Action equates the application of the negatively charged polymer of Adair to the

step of "forming a layer containing a polymeric material" of Claim 1. Amended Claim 1, however, recites that the layer has a thickness "that is at least equal to .04 μm ." In contrast, the film of polymers deposited on the substrate shown in Adair have a thickness that is much less than .04 μm . As an example, the Applicant encloses a reference entitled "Structural Studies of Polymer-Cushioned Lipid Bilayers," which was disclosed in an Information Disclosure Statement filed prior to this Response, in which a polymer film similar to Adair is described. In table 1 of the reference, the polymer film thickness has a calculated value of .004 μm , which is much less than .04 μm .

Additional evidence that the polymer film of Adair is less than the layer of Claim 1 is provided by Adair itself. In Adair, after the formation of the polymer layer, the layer is washed with a fusible solvent which can dissolve the polymer. This washing is intended to help form an extremely thin film by removing the polyelectrolyte molecule to which the absorptivity of the substrate cannot reach. Therefore, only the polyelectrolyte absorbed by the electrostatic absorptivity of the substrate remains.

In contrast, in the present application, the polymer containing layer is not washed with a fusible solvent which can dissolve the polymer. A polymer layer of a predetermined thickness is created, which allows the particles to be packed into the layer. In contrast, the thin polymer layer of Adair only allows particles to adhere to its surface, whereas the present application provides for the forming of a polymer particle composite by packing the particles. Moreover, the polymer containing layer of the present application has a defined thickness that is appropriate for the application for which the polymer particle composite is used. In contrast, the exact thickness of the polymer film of Adair is not predetermined and it is clear that the thickness of the polymer layer of Adair is much less than .04 μm .

In view of the aforesaid, the Applicant respectfully submits that Independent Claim 1 is allowable over Adair.

Claims 2-13, and 23 are dependent on Claim 1. Therefore, the Applicant respectfully submits that these claims are allowable for the same reasons as given with respect to Claim 1.

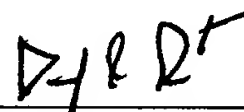
Allowable Subject Matter

The Applicant thanks the Examiner for indicating that Claims 21-22 are objected to but would otherwise be allowable if rewritten in independent form. Accordingly, the Applicant has amended Claim 21 in independent form to include the limitations of Claim 1. Therefore, the Applicant respectfully submits that Claims 21 and 22 are now in a condition for allowance.

Conclusion

The Applicant respectfully submits that all pending claims are in a condition for allowance. Favorable reconsideration is hereby requested.

Respectfully submitted,



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